

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application No. : 10/527,740 Confirmation No. : 9146  
First Named Inventor : Christoph KERN  
Filed : August 31, 2005  
TC/A.U. : 3636  
Examiner : S. Mcpartlin

Docket No. : 095309.56013US  
Customer No. : 23911

Title : Vehicle Seat Having a Massage Function and Contour Adjustment

**REVISED APPEAL BRIEF**

**Mail Stop Appeal Brief- Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

On July 14, 2008, Appellants appealed to the Board of Patent Appeals from the final rejection of claims 9-11, 13-17 and 20. The following is Appellants' Appeal Brief submitted pursuant to 37 C.F.R. § 1.192.

**I. REAL PARTY IN INTEREST**

An assignment of the present application to DAIMLERCHRYSLER AG was recorded on August 31, 2005 at Reel/Frame 016938/0696 and a Change of Name to DAIMLER AG was recorded on May 14, 2008 at Reel/Frame 020976/0889.

**II. RELATED APPEALS AND INTERFERENCES**

None.

**III. STATUS OF CLAIMS**

Claims 1-8, 12, 18-19 have been canceled.

Claims 9-11, 13-17 and 20 are finally rejected.

Claims 9-11, 13-17 and 20 are being appealed herein.<sup>1</sup>

**IV. STATUS OF AMENDMENTS**

Claims 10 and 17 have been amended by an Amendment filed concurrently herewith, such Amendment addressing the Section 112, paragraph 2 rejection and being entered pursuant to the Advisory Action mailed September 23, 2008.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

As regards independent Claim 9, the claimed invention is directed to a vehicle seat (Fig. 1) that has a seat cushion 2 and a backrest 3 with a plurality of individually pressurizable elements 4 which are shown as being distributed over substantially all of the entire surface of the seat cushion 2 and the backrest 3 (Specification, Page 9, lines 2-8).

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<sup>1</sup> Claim 9 contains a typographical error. In line 13, the word "affects" should be "effects." Correction thereof will be made following this appeal.

A controller 5 is arranged in the backrest 5 for selectively pressurizing the elements 4 for providing a massage effect (Specification, Page 9, lines 17-19).

The cushion-like elements 4 are small in relation to the seat surface contours to generate punctiform pressures (Specification, Page 11, lines 1-6). The elements 4 have individual connecting lines 6 to realize at the punctiform location both the desired localized seat contour and massage effects (Specification, Page 9, lines 9 and 10).

As regards independent Claim 17, again with reference to Fig. 1 but also now Figs. 2 and 3, a vehicle seating surface has an upholstery layer comprised of the upholstery 7 and undersprings 11, and a seat cover 8 over the upholstery layer (Specification, Page 10, lines 4-9). The small, separate individual, pressurizable elements 4 which can be of different shapes (Fig. 4) having the common characteristic of providing punctiform or localized pressurization (Specification, Page 11, lines 4-7). The means for individually inflating these elements to produce the punctiform massage effects and seat surface contour change is constituted by the controller 5 and individual lines 6 shown in Figs. 1-5 (Specification, Page 9, lines 5-8 and 17-19).

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether claims 9-10 and 14-16 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by Kashiwamura et al.
2. Whether claims 11, 13, 17 and 20 are unpatentable under 35 U.S.C. § 103(a) over Kashiwamura et al in view of Thomas et al.

**VII. ARGUMENT**

1. The Section §102 Rejection

It is now black letter patent law that a reference must show each and every element set forth in a claim in order to constitute anticipatory prior art. Applicants doubt that the Examiner will dispute that principle or the equally well established principle that claimed terms are to be given their broadest reasonable interpretation.

In the present case, the final rejection is premised on the argument that "punctiform" is a relative term and that the pressurizable elements in the Kashiwamura et al seat "function to perform punctiform support." While Applicants would concede that the term "punctiform" is not a mathematically precise term, it is not relative in the sense that, for example, the terms "larger" and "smaller" are. Rather, it has a fairly bounded and well understood definition, namely having the form or character of a point as will be revealed by a simple Google search.

However else one may describe the support bags 1-10 in the Kashiwamura et al seat, they cannot reasonably be construed as small in relation to the seat

contour surface so as to generate punctiform pressures as set forth in Claim 9 on appeal. As a result, they also cannot be seen as providing the massage effects at punctiform locations and localizing the changing of seat contour.

Applicants have acknowledged in their Specification ([0003]) that it was known to provide seats with relatively large pneumatic elements for the purpose of adjusting seat contour unlike the Kashiwamure et al pads, which had disadvantages such as limiting the adjustment of the seat contour. Likewise, they also recognized ([0004]) the preexistence of pneumatic elements in vehicle seats to produce massaging effects albeit weak massaging effect. Finally, they acknowledged ([0005]) the general teaching in DE 43 31 663 C1 of the desirability of integrating small air cushions to both influence seat contour and produce massaging effects. But no adequate description of such a system was disclosed. The teachings of the Kashiwamura et al patent do not add anything to what is acknowledged prior art.

The final rejection does not address something that Applicants have previously pointed out. That is, the large support bags 1-10 in the Kashiwamura et al seat are limited to specific locations, namely the shoulders, lumbar region, sides and thighs of the vehicle occupant so as to support the occupant based upon changes in lateral and longitudinal accelerations as well as vehicle inclination. Seat contouring is not a feature of this seat, and the final rejection doesn't appear to contend otherwise.

It should be very clear that the Kashiwamura et al seat deals primarily with desired body pressure distribution of a vehicle occupant adapted to vehicle acceleration and other conditions (Abstract). Given the nature of this seat and its intended functionality, the control unit 41 and the valve unit 24 that is connected to the bags 1-10 are located exteriorly of the seat for further connection to various sensors such as a vibration sensor 29, a speed sensor 30 and so forth (col. 3, line 55 to col. 4, line 17). The pressurization of the various bags takes place in connection with sensor outputs and without driver intervention or desires or that purpose.

The final rejection refers to col. 3, lines 33-38 and 50-53 of the Kashiwamura et al patent to argue that the prior art seat involves providing massage effects. As noted above, however, providing massage effects in a vehicle seat *per se* was acknowledged by Applicants to be known even if the massage effects were less than optimum. Applicants would still contest the final rejection's argument that col. 10, lines 33-38 deal with massage effects. Instead, the idea expressed there is to keep the driver awake. Only col. 10, lines 48-52 admit of the possibility of using the air bags to supply a massage, but such massage will not be performed with punctiform pressures at punctiform locations distributed over substantially the entire seat surface as set forth in Claim 9.

Claim 9 and the claims dependent thereon are not anticipated by the Kashiwamura et al patent.

2. The Section § 103 Rejection

The final rejection now relies upon the device shown in Figs. 1 and 2 of the Thomas et al patent in support of its argument that it would have been obvious to position Kashiwamura et al's pressurizable elements 1-10 on an insert and place the insert between a cover and a lined upholstery layer based upon Thomas et al's teaching or a bottom layer 26 and its compressible/expandable member 28. Applicants note here the Office's shift from its previous reliance upon the device shown in Fig. 16 of the Thomas et al patent to its current reliance on Fig. 1 of that patent.

But Fig. 1 in the Thomas et al patent relates to an air spring bed system 10 which has a planar mattress matrix 12 and a box spring assembly. Even under the more expansive *KSR* test of obviousness, however, there is no rational reason advanced in the final rejection or that can be surmised now why one skilled in the art would have looked to the Thomas et al air bed system 10 to develop the contourable seat surface in Claim 17 on appeal using the punctiform elements that also provide a massage effect absent the benefit of hindsight.

And while the Thomas et al bed system seeks to reduce stress by changing the pressure to support areas that require greater support (col. 4, lines 48-65), the contour of the mattress is not changed. Even if, therefore, the teachings of both Kashiwamura et al and Thomas et al were combinable in an appropriate Section 103(a) sense, the resulting hypothetical seat surface would not be one

that produces both punctiform massage effects and surface contour changes. In other words, a *prima facie* case of obviousness has not been made.

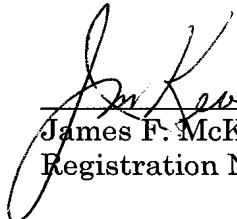
### **VIII. CONCLUSION**

In view of the foregoing, Appellant respectfully submits claims 9-11, 13-17 and 20 are patentable over the art of record and a reversal of the Final Office Action is warranted.

The Appeal Brief was previously submitted on November 14, 2008. The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. **05-1323**, Docket No.: 095309.56013US.

Respectfully submitted,

March 9, 2009

  
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## **CLAIMS APPENDIX**

Claim 9. A vehicle seat comprising:

- a seat cushion;
- a seat back;
- a plurality of individually pressurizable elements distributed over substantially an entire surface of at least one of the seat back and the seat cushion for adjusting a seat contour of said vehicle seat; and
- a controller for pressurizing individual pressurizable elements;

wherein,

- the controller is configured to provide massage effects; and
- the pressurizable elements are cushion-like elements which are small in relation to a surface of the seat contour to generate punctiform pressures on the seat back and seat cushion and are actuatable individually via lines via the controller in order to provide the massage affects at punctiform locations and change the seat contour in a substantially localized manner.

Claim 10. The vehicle seat as claimed in Claim 9, wherein the pressurizable elements are individually actuatable and together with the controller, set a desired seat contour.

Claim 11. The vehicle seat as claimed in Claim 9, wherein the pressurizable elements are arranged and fixed on a sheet support insert arranged below a covered lining.

Claim 13. The vehicle seat as claimed in Claim 9, wherein:

the pressurizable elements are actuatable via respective separate lines;

the lines are fixed in a support insert surface and brought together in a manner such that they are bunched together in the direction of the controller.

Claim 14. The vehicle seat as claimed Claim 9, wherein the elements can be pressurized pneumatically or electropneumatically.

Claim 15. The vehicle seat as claimed in Claim 9, wherein the controller is adapted for carrying out a multiplicity of preset and individually settable massage functions.

Claim 16. The vehicle seat as claimed in Claim 9, wherein the controller is configured to store a plurality of preselected settings of a seat contour.

Claim 17. A vehicle seating surface comprising:

- an upholstery layer, comprising padding supported on a support structure;
- a seat cover disposed on an exterior of said seating surface, over said upholstery layer;
- a plurality of individually pressurizable elements shaped to form punctiform pressure regions distributed in a pattern between the seat cover and

the upholstery layer over substantially an entire area of said seating surface;  
and

means for individually inflating said pressurizable elements  
selectively to produce punctiform massage effects and change of seat surface  
contour.

Claim 20. The vehicle seat as claimed in Claim 9, wherein  
the seat back and seat cushion each have an upholstery layer which  
is covered by a lining and a cover; and  
the pressurizable elements are arranged between the upholstery  
and the cover of the vehicle seat.

## **EVIDENCE APPENDIX**

None.

## **RELATED PROCEEDINGS APPENDIX**

None.